Clarification of HO Procedure after Drop Situation

Jaesun Cha and Sungcheol Chang

ETRI

1. Introduction

In current IEEE 802.16e specification, handover procedure after drop situation is defined. If MSS RNG-REQ includes a Serving BS ID and Target BS had not previously received MSS information over the backbone, then target BS may make a MSS information request of Serving BS over the backbone network and Serving BS may respond. After that, Should Serving BS close all connections and forward SDU associated with the MSS? At that time, Serving BS doesn't know whether handover is completed successfully or not because there is no feed-back message from Target BS.

To solve the above problem, we propose to add an additional backbone message to inform Serving BS of the result of handover at Target BS.

2. Proposed Text Changes

[*Modify Table D6*]

Table D6 – MSS-info-request Message

Field	Size	Notes
Global Header	152-bit	
For(j=0; j<Num Records; j++) {		
MSS unique identifier	48-bit	48-bit unique identifier used by MSS (as provided by the MSS or by the I-am-host-of message)
Action Flag	8-bit	0 – Request information 1 – MSS arrived form Idle mode 2 – MSS has transitioned to another paging group 3 – MSS requests handover
}		
Security field	TBD	

[*Insert the following section D.2.xx*]

D.2.xx HO-post-confirm Message

This message may be sent by BS to inform the former Serving BS of handover result. The message contains the following information.

Table Dxx – HO-post-confirm Message

Field	Size	Notes
Global Header	152-bit	
MSS Unique Identifier	48-bit	48-bit unique identifier used by MSS (as provided by the MSS or by the I-am-host message)
Result Flag	8-bit	0 – success 1 - Fail
Security field	TBD	A means to authenticate this message

[*Add the following figure D.xx*]

Figure D.xx – Example message flow of HO after drop situation